

COMMISSIONERS
KRISTIN K. MAYES - Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

ARIZONA CORPORATION COMMISSION 2010 AUS -2 P 2: 20

Direct Line: (602) 542-4143 Fax: (602) 542-0765 E-mail: kmayes@azcc.gov

July 30, 2010

AZ CCAR DOMESSAN DOCKET COMERCE

Arizona Corporation Commission DOCKETED

AUG 2 2010

DOCKETED BY

Mr. Jeff Guldner Vice President for Regulatory Affairs Arizona Public Service Company 400 North Fifth Street M.S. 8995 Phoenix, AZ 85004

Mr. Ray Heyman Vice President for Regulatory Affairs Tucson Electric Power Company One South First Street, Ste. 1820 Tucson, AZ 85701

Re: Battery storage research and development for use in conjunction with energy efficiency and renewable energy technology; 2011 REST and Energy Efficiency Implementation Plans; Docket No. E-01933A-10-0278.

Dear Mr. Guldner and Mr. Heyman:

As Arizona continues on its pace to become a leader in both distributed and utility scale solar energy production and consumption, as well as in the use of energy efficiency to meet electric demand, the desirability and necessity of battery storage would seem to be on the rise.

At least one utility in California has formed an alliance with battery technology firms and the Center for Sustainable Energy California designed to look at how Electric Vehicle batteries can also be used for home energy storage. Under that program, San Diego Gas and Electric ("SDG&E") is deploying a battery storage testing program, in which the Company will test three different lithium batteries for their home energy storage capabilities.¹

I am writing today to request that Arizona Public Service Company ("APS") and Tucson Electric Power Company ("TEP") examine the SDG&E battery program and report to the Commission, as a supplement to your respective 2011 REST or Energy Efficiency Implementation Plan dockets, whether a battery storage pilot program could be implemented in Arizona, and under what circumstances. I am particularly interested in whether your Companies have analyzed the potentially salutary impacts associated with battery storage on your systems, the potential cost

1200 WEST WASHINGTON, PHOENIX, ARIZONA 85007-2996 / 400 WEST CONGRESS STREET, TUCSON, ARIZONA 85701-1347

¹ See press release issued by the Center for Sustainable Energy California, "Study looks at repurposing batteries for household energy storage," June 10, 2010.

Mr Guldner/Mr. Heyman July 30, 2010 Page 2

savings associated with storage from a peak energy standpoint, and how and where the deployment of such battery storage would be most beneficial.

Arizona utilities typically experience high peak energy production costs during Arizona's summer months as the additional load created by our high temperatures and population growth necessitates relatively expensive gas-fired peaking generation during those times. I am interested in knowing whether Arizona utilities could maximize the value of the emerging battery technology sector in addressing these peaking needs.² Additionally, I would like to know whether you believe investment in battery storage pilot projects would make sense, in view of our state's overall commitment to distributed renewable energy. As you know, the Renewable Energy Standard in Arizona contains within it one of the highest distributed generation carveouts in the nation, and the Commission has recently initiated workshops and a draft Policy Statement on Feed-in Tariffs for distributed wholesale generation. Finally, as you are aware, this week the Commission adopted one of the nation's most ambitious energy efficiency standards, which will require your Companies to deploy new and existing energy efficiency and Demand Response measures designed to achieve 22 percent energy savings by the year 2020. I am curious whether you believe battery technologies could become an energy efficiency measure in the future.

If you do believe there is value to examining battery storage technology, please identify where in your Renewable Energy Implementation Plan or Energy Efficiency Implementation Plans it would be best addressed.³

Thank you for your attention to this matter and I look forward to reviewing your responses.

Sincerely,

Kris Mayes Chairman

Cc: Commissioner Gary Pierce
Commissioner Sandra Kennedy
Commissioner Paul Newman
Commissioner Bob Stump
Ernest Johnson
Steve Olea
Janice Alward

Lyn Farmer Rebecca Wilder

² Please also inform the Commission of any existing battery storage testing you have ongoing, in particular any storage technology efforts you may be undertaking with the state's universities, or at APS' Star Testing facility in Tempe.

³ For instance, the REST Implementation Plans of APS and TEP currently have provisions for Research and Development funding, typically conducted at Arizona's universities.